REMARKS

Applicant has carefully considered the Office Action dated March 25, 2003 and the references cited therein. Applicant respectfully requests reexamination and reconsideration of the application.

Applicant proposes the amendments to Fig. 2 to address the objections to the drawings as set forth in the Office Action. No new matter is believed added to the application by way of the proposed amendments to the figures as set forth herein.

Applicant has amended the specification substantially as suggested by the Examiner in his objection set forth in the Office Action. In addition, other minor modifications have been made. No new matter is believed added to the application by way of the proposed amendments to the specification as set forth herein.

Applicant is in the process of obtaining the manuals requested by the Examiner and will provide them once found.

In response to the rejection of the specification under 35 U. S. C. §112, first paragraph, the specification has been amended at the paragraph beginning on page 18, line 1. Such amendments are clearly supported by the flowchart of Figure 6, specifically block 610. The amended sections of the specification are now in accord with the other sections of the specification cited by the Examiner as potentially conflicting. The Examiner will note that both non-native CAD tool programs and native CAD tool programs reference the global definition file 200 through the technology file 202, directly or indirectly, as illustrated in Figures 5A-B.

Applicant has amended the claims 10, 13, 18 to conform the claim language with 35 U.S.C. Section 112, second paragraph. Specifically, the dependencies of claims 10, and 13 have been amended. Claim 18 has been amended to conform the terminology recited therein with that recited in the Summary of the Invention section of the application. These amendments have not been made to distinguish over any reference of record and no narrowing of any corresponding equivalents to which the amended limitation(s) or claim(s) is/are entitled is intended by these amendments.

Claims 1 through 20 stand rejected under 35 USC §102(e) as being anticipated by United States Patent 5,050091, Rubin. After review of the portions of the Rubin

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reference provided, Applicant respectfully traverses the rejection as improper. Specifically, to anticipate a claim, a reference must teach every element of the claim (MPEP Section 2131). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Regarding computer program product claim 14, the Examiner has failed to indicate where Rubin discloses the (d) limitation of "program code for redefining the value of the global variable in the CAD tool program in accordance with modifications to the design rule characteristic assigned to the global variable in the global design rule definition file" (claim 14, line 11-13).

In this setting forth the rejection, the Examiner and analogized the global design rule definition file to the prototype object attributes stored within the database of the design system of Rubin. All objects within the Ruben database occur in one of two forms — prototypes and instances (column 15, lines 44-45). Yet in further setting forth the rejection, regarding limitation (d), the Examiner has alleged that the "change the technology" command (column 13, lines 41-50) redefines the value of the global variable in the global sign all definition file in accordance with modifications to the design rule. However, Rubin explicitly states:

> This command does not cause a change in the database, but instead causes the user interface 20 to couple to technology information 160 and display the basic elements of the newly selected technology on the screen. (Rubin, column 13, lines 41-50).

Accordingly, Applicant is puzzled how a change to the global design definition file, i.e. the alleged object prototypes in the Rubin database, could be made without the database being modified per Rubin's own explicit disclosure. As such, Applicant respectfully asserts that Rubin does not disclose the program code for redefining of a value of the global variable in the global design role definition file in accordance with a modification to the design rule as now cited in claim 14 (actual changes to the prototype objects within the Reagan database). Accordingly, claim 14 is believed not anticipated by Rubin, as filed.

Claims 1 and 16 have been amended to include limitation similar to claim 14. Specifically, Claim 1 has now been amended to include the limitations of claim 2 and
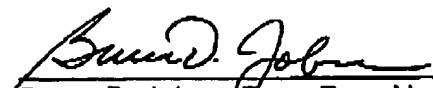
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specifically recites a method for ensuring consistency of design rule application among a plurality of CAD tool programs including *"redefining the value of the global variable in the global design rule definition file in accordance with modifications to the design rule and* conforming the CAD tool program to modifications in the design rule" (claim 1, lines 9-11). Claim 2 has been canceled, without prejudice. Claims 3-7, include all the limitations of claim 14 and are likewise believed allowable for at least the same reasons as claim 1, as well as on the merits of their own respective limitations.

Claim 16 has been amended to include limitations similar to claim 14. Specifically, claim 16 has now been amended to include the limitations of claim 17, now canceled, and specifically recites a method for ensuring consistency of design rule application among a plurality of CAD tool programs including *"redefining the value of the global variable in the global design rule definition file in accordance with modifications to the design rule and* conforming the CAD tool program to modifications in the design rule" (claim 16, lines 9-11). Accordingly, claim 16 is believed not anticipated by Rubin for at least the same reasons as claim 1 and 14, as well as on it s own respective limitations. Claim 17 has been canceled, without prejudice.

Claims 12, 15, and 18 include similar language and are likewise believed patentable over the Rubin reference, whether considered singularly or in combination with other references of record, based on their own perspective merits.

Applicant believes the claims are in allowable condition. A notice of allowance for this application is solicited earnestly. If the Examiner has any further questions regarding this amendment, he/she is invited to call Applicant's attorney at the number listed below. The Examiner is hereby authorized to charge any fees or credit any balances under 37 CFR §1.17, and 1.16 to Deposit Account No. 02-3038.

Respectfully submitted,

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Version Marked to Show Changes

Please substitute for the paragraph beginning on page 17, line 24 the following:

Fig. 5B illustrates the relationship between global design rule definition file 200, technology file 202, translator program 207 and a non-native CAD tool 212, with the relationships between the respective files and tools illustrated conceptually as arrows. If a non-native technology file 202 can not accept a SKILL variable directly, a program 207 translates the global design rule definition file [202] 200 into the non-native CAD tool technology file 202 in the manner previously described to supply the non-native CAD tools 212 or other application programs with the appropriate design rule data.

Please substitute for the paragraph beginning on page 14, line 39 the following:

Tools utilizing design rules other than Cadence dfll tools can also build their technology files dependent on the global design rule definition file 200. The global design rule definition file 300 is a plain text file, although in SKILL format in the illustrative embodiment. Accordingly, other CAD tools may easily read and parse the global design rule definition file 200. This is particularly useful for custom designed CAD tools which are not native SKILL programs, such as nonnative design tools and applications 212A-N in the illustrative embodiment. As an example, an initialization program [214] 210 (ParseSkillRules.il) uses global design rule definition file 200 as an input file and generates two output files used by the technology file 202 and Calibre, a verification tool commercially available from Mentor graphics Inc., respectively. Specifically, as for the first output file, ParseSkillRules.il reads and parses global design rule definition file 300 and generates the first output file in a temporary directory. ParseSkillRules.il then transparently loads the first output file to the technology file 202 (Opus 4.4 technology file) to create the illusion for the non-SKILL CAD tool user that the global design rule definition file 300 (SkillDesignRules.il) was referenced directly.

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The second output file is included in all the Calibre rule definition files to define the variables therein. The following is a code listing of the ParseSkillRules.il program which performs the above-identified process:

Please substitute for the paragraph beginning on page 18, line 1 the following:

Fig. 6 illustrates a flow chart of a process for ensuring consistancy of designable applications in a CAD environment in accordance with the present invention. First, a set of design rules defining the physical limitations of the technology with which the design is to be implemented is provided, as illustrated by procedural step 600 of Fig. 6. Typically, the design rules will be defined in a file or files which define specific physical [quanties] quantities for the physical characteristics of a particular fabrication technology. For example, the width of depth of a path of metal on a substrate. It will be appreciated that such design rules will vary greatly according to the technology used to implement a device. Next, in accordance with the invention, a global design rule definition file 200 is defined in which specific values for design rules of a particular technology are assigned to a global variable, as described with reference to section 314 of Fig. 3, and as illustrated in procedural step 602. If a CAD tool is native, i.e. developed in the same language as the global variables are defined in the global design rule definition file 200, and custom designed, the CAD tool accesses the values of the global variables in file 200 directly, as illustrated in step 610, without further need for translation or compilation of a technology file 202. In this case when a global variable is redefined in the global design rule definition file 200 the custom designed native CAD tools will directly access the updated variable.

Please substitute for the paragraph beginning on page 18, line 18 the following:

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All other CAD tools utilize the technology file to indirectly reference the global variables of [site] file 200. Next, the global variables defined in the global design rule definition file 200 are referenced by the technology file 202, as illustrated in procedural step 604. Loading of the global design rule definition file into the technology file occurs through a process of linking, compilation and or translating, as described hereafter. The technology file is made available for compilation or binding to one or more CAD design tools which contain program statements including one or more of the global variables.

Please substitute the following claims for pending claims with the same numbers.

1.   (Amended) In a computer-aided design environment, a method for ensuring consistency of design rule application among a plurality of CAD tool programs, each design rule defining a design characteristic, the method comprising:
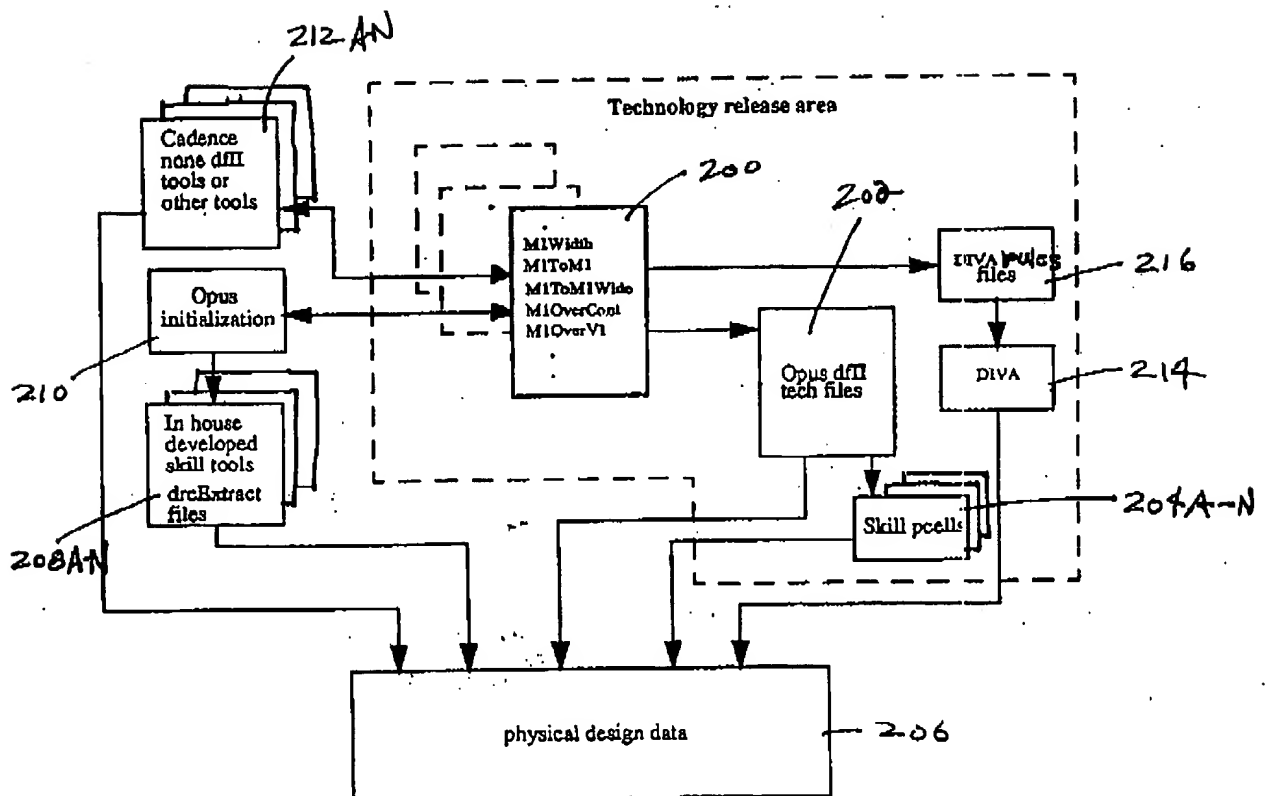(d)   creating a global design rule definition file including at least one global variable having a design rule characteristic assigned thereto;
(e)   providing a technology file containing a reference to the global variable;
(f)   initializing one of the CAD tool programs which utilizes the global variable with the technology file reference to the global variable; and
(d)   redefining the value of the global variable in the global design rule definition file in accordance with modifications to the design rule and conforming the CAD tool program to modifications in the design rule.

Please cancel claim 2, without prejudice.

10.   (Amended) The system of claim [5] 8 wherein the CAD tool program and the global design rule definition file are written in the same language.

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13.   (Amended) The system of claim [1] 8 wherein the global design rule definition file comprises a plurality of global variables, each global variable having a design rule characteristic assigned thereto.

16.   In a computer-aided design system having a memory, a method for ensuring consistency of design rule application among a plurality of CAD tool programs, each design rule defining a design characteristic, the method comprising:

(d)   creating a global design rule definition file in the memory, the global design rule definition file including at least one global variable having a design rule characteristic assigned thereto;

(e)   providing at least one program statements within one of the CAD tool programs which references a global variable within the global design rule definition file; and

(f)   redefining the value of the global variable in the global design rule definition file in accordance with modifications to the design rule characteristic and conforming the CAD tool program to modifications in the design rule characteristic.

Please cancel claim 17, without prejudice.

18.   (Amended) A computer data signal embodied in a carrier wave:

D.   program code for performing a computer-aided design function with a value of a global variable representing a design rule characteristic;

E.   program code for referencing the value of the global variable in a [global design rule definition] technology file; and

F.   program code for utilizing the value of the global variable received from the [global design rule definition] technology file to perform the computer-aided design function.

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Fig. 2

AMENDMENT TRANSMITTAL	Docket No. P3520

Applicant:	Mu-jing Li
Serial No:	09/481,246
Filed:	January 11, 2000
For:	METHOD AND SYSTEM FOR ENSURING CONSISTENCY OF DESIGN RULE APPLICATION IN A CAD ENVIRONMENT
Examiner:	Hugh Jones
Art Unit:	2763

Mail Stop Non-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Transmitted herewith for filing is the following:

Enclosures
☒ Amendment
☐ Petition for a   month Extension of Time
☒ Return Receipt Postcard
☐ Other:

Small Entity
☐ Applicant/assignee claims small entity status.
☐ Small entity status is no longer claimed.

Fees

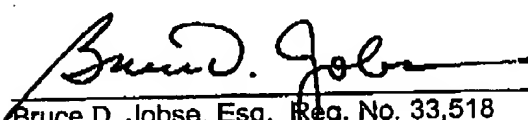| Claims as Filed					
	Claims Filed	Highest Number Paid for	Number of Extra Claims	Rate	Additional Fees Due
Total Claims (37 CFR §1.16(c))	20	- 20 =	0 X	$18.00 =	$ 0.00
Independent Claims (37 CFR §1.16(b))	6	- 6 =	0 X	$84.00 =	$ 0.00
Extension Fee					$ 0.00
Reduction by 50% for filing by small entity					$ 0.00
Total Filing Fee					$ 0.00

Amendment Transmittal 1 of 2

Payment

☐ Check in the amount of the total filing fee.

☐ Charge Account No. 02-3038 in the amount of the total filing fee. A duplicate of this transmittal sheet is attached.

Authorization to Charge Additional Fees

☒ The Commissioner is hereby authorized to charge any additional fees under 37 C.F.R. §1.16 and §1.17 required by the attached paper and during the entire pendency of this application to Account No. 02-3038.
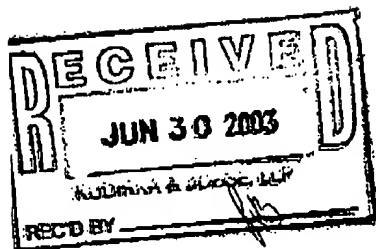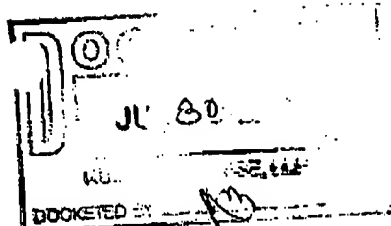
Date: 6/23/03

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Amendment Transmittal 2 of 2

RECEIVED
JUN 30 2003

(Soo12/7022)

Serial No. 09/481 246   File No. P3520   By: BA4/bak

Title: Method And System for Ensuring Consistency of Design Rule Application

Application of _____ Mu ing la

• The following. DUE 6/25/08 in the U.S.PTO was received in the PTO Mail Room on the date stamped ocreon.

[ ] Cert. of Mailing by Express Mail (37 CFR 1.10)
     Express Mail Label No. _____
[x] Cert. of Mailing under 37 CFR 1.8 (a)
[X] Application for Patent Incl. _____ pages,
     (_____ pgs) Specification, (_____ pgs) Abstract,
     (_____ pgs) Claims (_____ # claims)
[ ] Affidavit or [ ] Declaration/Oath
[ ] Request for Corrected Filing Receipt
[ ] Drawings _____ Sheet(s) (fies)
     [ ] Formal or [ ] Informal drawings
[ ] Multiple Dependent Claim Fee Sheet
[ ] Priority Document(s) # _____
[ ] Non-publication Request
[ ] Application Data Sheet
[ ] Req. for Filing [ ] Cont. [ ]
     under 37 CFR 1.60
[ ] CPA under 37 CFR 1.53 (d)

[ ] Inf. Discl. Statement, PTO Form 1449 and
     References Cited
[ ] Change of Correspondence Address Req.
[ ] Request for Refund
[ ] Assignment
[ ] Assignment Recordation Cover Sheet
[ ] Check for $ _____
     Check # _____
[X] Amendment
[ ] Letter to Official Draftsman
[ ] Declaration w/copy of notice to File Miss.ng Parts
[ ] Maintenance Fee
[ ] Power of Attorney
[ ] Status Inquiry
[ ] Brief (_____ x3)
[ ] Issue Fee Transmittal with PTOL-85B
[ ] Petition for Ext. of Time (x2)
[X] Transmittal Letter (x2)

[ ] Other _____

MAILED 6/23/03